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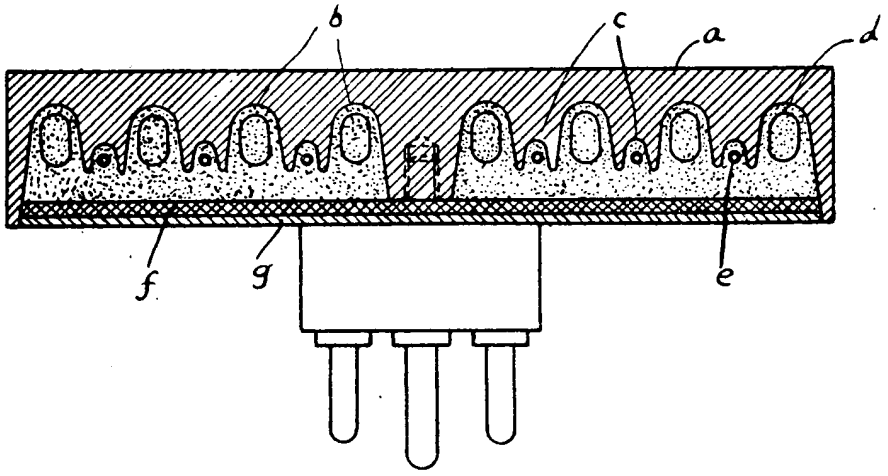

[This Drawing is a reproduction of the Original on a reduced scale.]

Malby & Sons, Photo-Lith.

219-468.1

PATENT SPECIFICATION

Convention Date (Germany): May 2, 1936.
Application Date (in United Kingdom): May 3, 1937.
Complete Specification Accepted: Oct. 25, 1938.

494,352
No. 12591/37.

COMPLETE SPECIFICATION

Improvements in and relating to Electric Cooking Plates

We, THE BRITISH THOMSON-HOUSTON COMPANY LIMITED, a British company having its registered office at Crown House, Aldwych, London, W.C.2, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

It is known to provide electrical cooking plates with grooves on the underside of their casting and to bed the heating conductors in electrically insulating, good heat-conducting materials in the grooves. The heating resistance can be divided up according to the cooking stages. In order to obtain uniform heat distribution over the whole surface of the cooking plate, it has already been suggested to provide two heating resistances, which run parallel over the whole cooking plate surface and one of which serves for heating up with high power absorption, and the other for initial cooking or continued cooking with low power absorption. This construction has the disadvantage, however, that the former occupies too great a surface and the total power of the cooking plate is therefore reduced.

Grooved cooking plates are further known, with two different heating spirals arranged in two planes one above the other. The one of the two heating spirals lies in the normal deep grooves, and the other on the front surfaces of the ribs laterally confining the grooves.

In such a construction, however, only a small portion of the metal wall of the grooved casting is presented to the surface of the heating conductors of low power, so that only a slight part of the heat produced in this heat conductor can be conducted away to the casting and therefore to the cooking plate surface.

In order to obviate the above mentioned drawback and to keep the height of the cooking plate small despite the use of two heating resistances arranged one above the other, according to the present invention the heating conductors of lesser power are embedded in electrically insulating, good heat conducting material in groove-like recesses in the extremities of the ribs between the grooves in which the heating conductors of greater power are similarly embedded, so that an improved conduction of heat to the plate can be obtained.

The accompanying drawing is a cross sectional view of a grooved cooking plate constructed in accordance with the invention.

The casting *a* of an electrical cooking plate is formed with the normal grooves *b* and additional smaller recesses *c* in the extremities of the ribs between the grooves *b*. A heating filament *d* for high power is fitted in the former and a heating filament *e* suitable for smaller power is fitted in the latter. Owing to the greater dimensioning of the coils *d* the danger of damage thereto in the course of winding and pressing in is reduced to a minimum. Further, owing to the enlargement of the wire surface, the specific surface loading is considerably diminished. The recesses *c* are preferably so dimensioned that the heating resistances do not project therefrom. In this way the heat radiation losses of the heating filaments are restricted to a minimum. The casting is closed off externally in a known way by means of an insulating plate *f* and a lid *g*.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. An electrical grooved cooking plate with heating resistances arranged in two planes lying one above the other, in which the heating conductors of lesser power are embedded in electrically insulating, good heat conducting material in groove like recesses in the extremities of the ribs between the grooves in which the heating conductors of greater power are similarly embedded.

2. An electrical grooved cooking plate according to Claim 1, characterised in that the dimensions of the recesses for the heat conductors of lesser power suffice for

[*Price* 1/-]

their complete accommodation.

3. An electrical grooved cooking plate substantially as hereinbefore described with reference to the accompanying drawings.

Dated this 3rd day of May, 1937.

A. S. CACHEMAILLE,
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Agent for the Applicants.

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